

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 94-111
NPDES PERMIT NO. CA0037796

WASTE DISCHARGE REQUIREMENTS FOR:

PINOLE-HERCULES WASTEWATER TREATMENT PLANT
CITY OF PINOLE
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The City of Pinole, hereinafter called the discharger, submitted a Report of Waste Discharge dated March 24, 1994 for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).
2. This discharge is presently governed by Waste Discharge Requirements in Order No. 89-117, adopted by the Board on July 19, 1989.
3. The discharger owns and operates the Pinole-Hercules Water Pollution Control Plant located at 11 Tennent Avenue in Pinole, Contra Costa County. The plant provides secondary level treatment for domestic wastewater collected within the cities of Pinole and Hercules. The discharger's service area currently has a population of about 30,000. The treatment plant has an average dry weather flow design capacity of 4.2 million gallons per day (mgd). The plant presently discharges an average dry weather flow of about 1.80 mgd, and an annual average effluent flow of about 2 mgd. A map showing the location of the facility is included as Attachment A.
4. The U.S. Environmental Protection Agency (USEPA) and the Board have classified this discharge as a major discharge.
5. Treatment facilities utilized prior to discharge to San Pablo Bay consist of screening, primary clarification, biological treatment using activated sludge, secondary clarification, and disinfection. A treatment process schematic diagram is included as Attachment C.
6. Treated wastewater is currently discharged into San Pablo Bay, a water of the State and the United States, through a submerged diffuser about 3,900 feet off-shore at a depth of about 18 feet below mean lower low water (Latitude 38 deg., 3 min., 6 sec.; Longitude 122 deg., 15 min., 55 sec.). The outfall is used jointly by Pinole and the cities of Rodeo and Hercules.

7. There are viable shellfish beds in San Pablo Bay that could be affected by the discharge of wastewater. To protect the shellfish beds, the Board has required, and will continue to require, that the wastewater receive an initial dilution of at least 45:1 in the receiving water.
8. Sludge generated at the plant is treated in anaerobic digestors, then centrifuged and disposed of in a local landfill.
9. The Board adopted a revised Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on December 17, 1986. The Basin Plan identifies beneficial uses and water quality objectives for surface waters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses. This Order implements the plans, policies and provisions of the Board's Basin Plan.
10. The effluent limit for copper in this permit is based on 4.9 ug/l copper as an interpretation of the narrative toxicity objective in the Basin Plan, based on best professional judgement. Specifically, the use of 4.9 ug/l as the site-specific objective for copper is based on the Regional Board study that employed the "water effect ratio" approach developed by the EPA. This study and associated staff analysis are described in a September 25, 1992 staff report entitled "Revised Report on Proposed Amendment to Establish a Site Specific Objective for Copper for San Francisco Bay".
11. It is the Board's intention to work towards controlling copper loadings to the San Francisco Bay-Delta Estuary, such as through a regional copper wasteload allocation. This permit may be amended in the future to include specific copper mass loading limitations and loading reductions in accordance with an approved copper wasteload allocation.
12. Effluent limitations in this permit are based on the plans, policies, and water quality criteria of the Basin Plan, Quality Criteria for Water (EPA 440/5-86-001, 1986; Gold Book), Applicable Federal Regulations (40 CFR Parts 122 and 131), the National Toxics Rule (57 FR 60848, 22 December 1992; NTR), and Best Professional Judgement. Due to the salinity in the San Pablo Bay waters, effluent limitations for the discharge are based on marine water quality objectives as specified in the Basin Plan.
13. The Basin Plan contains water quality objectives and beneficial uses for San Pablo Bay and contiguous waters. The beneficial uses of San Pablo Bay are as follows:
 - Industrial Service Supply
 - Navigation
 - Water Contact Recreation
 - Non-contact Water Recreation
 - Ocean Commercial and Sport Fishing
 - Wildlife Habitat
 - Preservation of Rare and Endangered Species
 - Fish Migration
 - Fish Spawning
 - Shellfish Harvesting
 - Estuarine Habitat

14. Existing effluent data for polynuclear aromatic hydrocarbons (PAHs) do not provide sufficiently low detection limits for determination of compliance with the new effluent new limits for PAH's. Due to uncertainty as to whether the discharger can comply with the new limit, this Order includes an interim limit for PAH's. Interim limits shall apply until this permit is reissued, at which time application of the then current effluent limitation will be used to regulate PAH's, unless the discharger can demonstrate that a different limit is warranted.
15. Federal Regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial stormwater discharges.
16. The discharger has submitted a Storm Water Pollution Prevention Plan which describes industrial storm water discharges at the facility and storm water management controls. The plan does not include a proposed program for monitoring and sampling of the stormwater discharges from the site. This Order requires that the discharger develop a sampling plan for stormwater discharges. The storm water flows from the wastewater treatment facility process areas are directed offsite to San Pablo Bay. These storm water flows constitute all industrial storm water at this facility and consequently this permit regulates all industrial storm water discharge at this facility.
17. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.
18. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.
19. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.
20. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the City of Pinole (discharger) shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in Finding Nos. 3, 5, and 6 is prohibited.

2. Discharge at any point at which the wastewater does not receive an initial dilution of at least 45:1 is prohibited.
3. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.
4. The average dry weather flow discharge shall not exceed 4.0 mgd. The average dry weather flow shall be determined over three consecutive dry weather months each year.
5. Discharges of water, materials, or wastes other than storm water, which are not otherwise authorized by this NPDES permit, to a storm drain system or waters of the State are prohibited.
6. Storm water discharges shall not cause pollution, contamination, or nuisance.

B. EFFLUENT LIMITATIONS

The term "effluent" in the following limitations means the fully treated wastewater effluent from the discharger's wastewater treatment facility, as discharged to San Pablo Bay.

1. The effluent discharged to San Pablo Bay shall not exceed the following limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a. Biochemical Oxygen Demand (BOD ₅ , 20°C)	mg/l	30	45	60	--
b. Total Suspended Solids	mg/l	30	45	60	--
c. Oil & Grease	mg/l	10	--	20	--
d. Settleable Matter	ml/l-hr	0.1	--	--	0.2
e. Chlorine Residual ¹	mg/l	--	--	--	0.0

¹ Requirement defined as below the limit of detection in standard test methods defined in *Standard Methods for the Examination of Water and Wastewater*.

2. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
3. Total Coliform Bacteria: The treated wastewater, at some place in the treatment process prior to discharge, shall meet the following limits of bacteriological quality: The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 ml; and, any single sample shall not exceed 10,000 MPN/100 ml.
4. 85 Percent Removal, BOD and TSS: The arithmetic mean of the biochemical oxygen demand (Five-day, 20°C) and total suspended solids values, by weight, for effluent samples

collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period.

5. **Acute Toxicity:** Representative samples of the effluent shall meet the following limits for acute toxicity: (Provision F.5 of this Order applies to these bioassays.)

The survival of organisms in undiluted effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

11 sample median: A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

90th percentile: A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

6. **Toxic Substances Effluent Limitations:** The effluent shall not exceed the following limits (a, f):

Table 1 (All limits in $\mu\text{g/l}$)

<u>Constituent</u>		<u>Monthly Average</u> (b)	<u>Daily Average</u> (b)	<u>Interim Limit Monthly Average</u> 9/21/94 to 9/21/99
1.	Arsenic		200	
2.	Cadmium		30	
3.	Chromium (VI) (c)		110	
4.	Copper		37	
5.	Lead (g)		53	
6.	Mercury	0.21	1	
7.	Nickel (g)		65	
8.	Selenium (g)		50	
9.	Silver		23	
10.	Zinc (g)		580	
11.	Cyanide (d)		25	
12.	PAHs	0.31		16 (e)
13.	Phenol	500		

Footnotes:

- a. These limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.
- b. Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - Calendar month).
- c. The discharger may meet this limit as total chromium.

- d. The discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.
- e. Interim limit for PAH's shall apply until the next permit reissuance.
- f. All analyses shall be performed using current USEPA Methods, as specified in USEPA Water/Wastewater Method (EPA-600 Series). Detection limits, practical quantitative levels, and limits of quantitative will be taken into account in determining compliance with effluent limitations.
- g. Effluent limitation may be met as a 4-day average. If compliance is to be determined based on a 4-day average, then concentrations of four 24-hour composite samples shall be reported, as well as the average of four.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State any one place within one foot of the water surface:
 - a. Dissolved Oxygen 7.0 mg/l, minimum

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

- b. Dissolved Sulfide 0.1 mg/l, maximum
- c. pH Variation from normal ambient pH by more than 0.5 pH units.
- d. Un-ionized Ammonia 0.025 mg/l as N, annual median
0.16 mg/l as N, max.

- e. Nutrients Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
4. Storm Water Discharge
 - a. Storm water discharges shall not adversely impact human health or the environment.
 - b. Storm water discharges shall not cause or contribute to a violation of any applicable water quality objective for receiving waters contained in the Basin Plan.

D. SLUDGE MANAGEMENT PRACTICES

1. All sludge generated by the discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 CFR Part 503. If the discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to the USEPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the discharger.
2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.
3. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.
4. The discharge of sewage sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.
5. The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.
6. The discharger shall submit an annual report to the USEPA and the Board containing monitoring results and pathogen and vector attraction reduction requirements, as applicable to

the sludge use and/or disposal, as specified by 40 CFR 503, postmarked February 19 of each year, for the period covering the previous calendar year.

7. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.
8. Permanent on-site sludge storage or disposal activities are not authorized by this permit. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the discharger.
9. Sludge Monitoring and Reporting Provisions of this Board's "Standard Provisions and Reporting Requirements", dated August 1993, apply to sludge handling, disposal and reporting practices.
10. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

E. STORMWATER MONITORING AND REPORTING REQUIREMENTS

1. The discharger shall develop and implement a Storm Water Pollution Prevention Plan (SWPP Plan) for the treatment plant in accordance with the attached "Standard Storm Water Provisions". The SWPP plan shall be reviewed and updated as appropriate by October 1, every year. Full compliance with the "Standard Storm Water Provisions" shall be an enforceable requirement of this permit.
2. A storm water monitoring and sampling program shall be developed and implemented as part of the SWPP Plan. This plan shall be developed and amended, when necessary, to meet the following objectives:
 - a. To monitor the quality of storm water discharges relative to Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations.
 - b. To aid in the implementation of the Storm Water Pollution Prevention Plan.
 - c. To monitor the effectiveness of control measures and management practices in removing pollutants in storm water discharge.
3. During the wet season (October 1 to April 30), the discharger shall:
 - a. Conduct visual observations of the storm water discharge locations on at least one storm event per month that produces significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discolorations, turbidity, and odor, etc. A significant storm water discharge is a continuous discharge of storm water for a minimum of one hour, or intermittent discharge of storm water for a minimum of three hours in a 12-hour period.

- b. Measure (or estimate) the total volume of storm water discharge and collect and analyze grab samples of storm water discharge from at least two storm events that produce significant storm water discharge for: Oil and Grease, pH, Total Suspended Solids, Specific Conductance, and other pollutants that have a reasonable potential to be present in storm water discharge in significant quantities.
4. Testing for the presence of non-storm water discharges shall be conducted no less than twice during the dry season (May to September) at all storm water discharge locations. Tests may include visual observations of flows, stains, sludges, odors, and other abnormal conditions; dye tests; TV line surveys; and/or analysis and validation of accurate piping schematics. Records shall be maintained of the description of the method used, date of testing, location observed, and test results.
5. Samples shall be collected from all locations where storm water is discharged. Samples must represent the quality and quantity of storm water discharged from the facility. If storm water discharges occur at multiple locations, the discharger may sample a reduced number of locations if it is established and documented in the monitoring program that storm water discharges from different locations are substantially identical.
6. Records of all storm water monitoring information and copies of all reports required by this Order shall be retained for a period of at least three years from the date of the sample, observation, or report. Storm water monitoring results shall be reported in the monthly Self-Monitoring Reports.

F. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 89-117, which is hereby rescinded.
2. The Discharger shall comply with all sections of this Order immediately upon adoption.
3. This permit may be reopened to include a numeric mass loading limit for copper.
4. Where concentration limitations in mg/l or $\mu\text{g/l}$ are contained in this Permit, the following Mass Emission Limitations shall also apply.

(Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor)).

5. Compliance with Acute Toxicity Effluent Limitation
 - a. Compliance with Effluent Limitation C.5 (Acute Toxicity) of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in flow-through bioassays. Two fish species will be tested concurrently. Each fish species represents a single bioassay.

- b. The two compliance species shall be as specified by the Executive Officer. The discharger shall conduct a minimum of one screening of three species: three-spine stickleback, rainbow trout and fathead minnow. All tests in a single screening must be completed within ten days of each other. The three species screening requirement can be met using either flow-through or static renewal bioassays. The discharger shall submit screening test data acceptable to the Executive Officer, within ten months after adoption of this Order.
 - c. The Executive Officer may consider allowing compliance monitoring with only one fish species (the most sensitive of the two), if the discharger can document that the acute toxicity limitation, specified above, has not been exceeded during the previous three years, or that acute toxicity has been observed in only one of two fish species.
 - d. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.
 - e. The discharger shall submit a proposed time schedule, by August 1, 1995, for compliance with the above described requirements. Compliance shall be established no later than October 1996.
6. Toxicity Reduction Evaluation (TRE) for Acute Toxicity: If there is a violation of the acute toxicity effluent limitation, the discharger shall conduct a TRE, which shall initially involve a toxicity identification evaluation (TIE). The toxicity identification work shall begin as soon as it becomes apparent that a violation has occurred. In order to most effectively track down the cause of a violation, review of then-current plant data and functioning of each process unit, and efforts to acquire additional samples of wastewater for analyses must be initiated immediately. Conditions of the plant may change from day to day; therefore, it is important to begin the violation evaluation as soon as possible. Samples shall be analyzed for any/all constituents that may be contributing to the acute toxicity violation. As specified in the Self-Monitoring Program, Part A, Section C.2.d, the bioassay test shall be re-initiated once the violation has been noticed, and continued until compliance with the acute toxicity requirement can be demonstrated.

The objective of the TIE shall be to identify the plant upset or poor functioning of any process unit, and/or chemical or combination of chemicals that is/are causing the observed toxicity. As sources of toxicity are identified, the discharger shall continue the TRE by evaluating alternative strategies for reducing or eliminating the cause of toxicity from the discharge. The Board recognizes that identification of causes of acute toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the discharger's actions in identifying and reducing sources of consistent toxicity.

7. Compliance With Toxic Substances Limitations: The discharger shall comply with Effluent Limitations B.6 immediately upon adoption of this Order.
8. The discharger shall develop a storm water monitoring program to fulfill requirements as specified above under Stormwater Specifications. This plan shall be incorporated into the Storm Water Pollution Prevention Plan and resubmitted to the Regional Board.

April 15 Reporting Requirements

9. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.
10. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.
11. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities. A Treatment Facilities Evaluation Program report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

Other Reporting Requirements

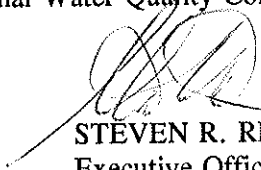
12. The discharger shall implement a Storm Water Pollution Prevention Plan (SWPP Plan) in accordance with the "Standard Storm Water Provisions" in the attached Standard Provisions and Reporting Requirements. The SWPP Plan shall be reviewed and updated as appropriate by October 1, every year. Full compliance with the "Standard Storm Water Provisions" shall be an enforceable requirement of this permit.
13. The discharger shall comply with the Self-Monitoring Program for this order, as adopted by the Board and as may be amended by the Executive Officer.
14. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements" dated August 1993, or any amendments thereafter.
15. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a

statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

16. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.
17. This Order expires on September 21, 1999. The discharger must file a report of waste discharge in accordance with Title 23 of the California Administrative Code not later than 120 days before this expiration date as application for reissuance of waste discharge requirements.
18. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 21, 1994.



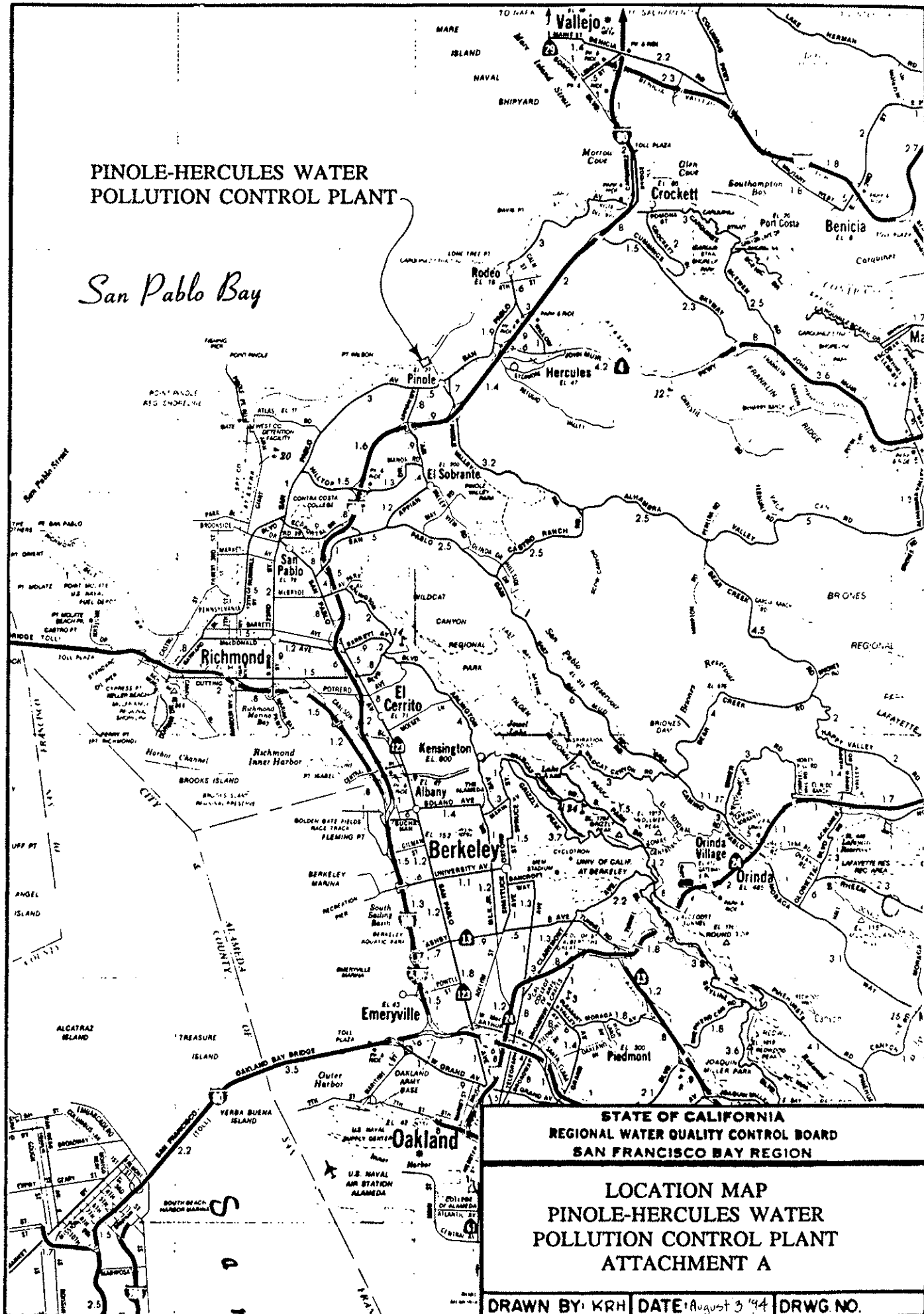
STEVEN R. RITCHIE
Executive Officer

Attachments:

- A. Location/Site Maps
- B. Summary of Report Due dates/Deadlines
- C. Process Schematic
- D. Self-Monitoring Program
- E. Standard Provisions and Reporting Requirements - August 1993
- F. Standard Storm Water Provisions
- G. Contingency Plan - Resolution 74-10

PINOLE-HERCULES WATER POLLUTION CONTROL PLANT

San Pablo Bay



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

LOCATION MAP
PINOLE-HERCULES WATER
POLLUTION CONTROL PLANT
ATTACHMENT A

DRAWN BY: KRH DATE: August 3 '94 DRWG. NO.

ATTACHMENT B

SUMMARY OF REPORT DUE DATES AND ACTION DEADLINES

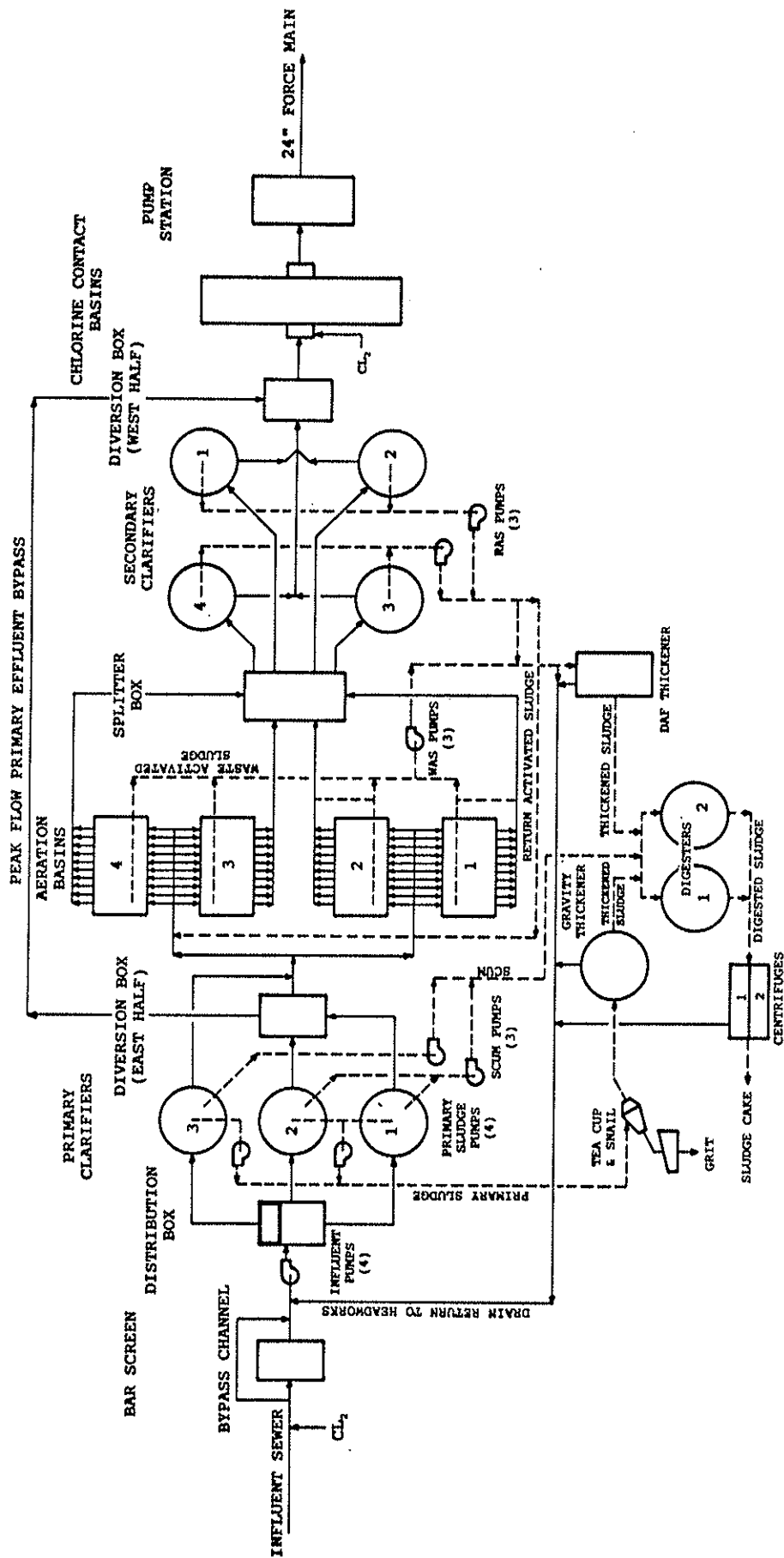
ANNUAL REPORTS

<u>Due Date to Board</u>	<u>Name of Report/Reference</u>	
April 15	Operations & Maintenance Manual	F. 9
April 15	Contingency Plan	F. 10
April 15	Treatment Facilities Eval. Program	F. 11
October 1	Storm Water Poll. Preven. Plan	F. 12

SPECIFIC REPORT/ACTION DEADLINES

<u>Due Date to Board</u>	<u>Name of Report/Reference</u>	
August 1, 1995	Acute Toxicity Time Schedule	F. 5

Note: In case of discrepancy, the dates in the Order shall superceed those in this Attachment.



PINOLE/HERCULES WATER POLLUTION
CONTROL PLAN

ATTACHMENT C

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

PINOLE-HERCULES
WATER POLLUTION CONTROL PLANT
PINOLE, CONTRA COSTA COUNTY

NPDES NO. CA0037796
ORDER NO. 94-111

CONSISTS OF

PART A (August 1993)
PART B

PART B

PINOLE-HERCULES WATER POLLUTION CONTROL PLANT

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

<u>Station</u>	<u>Description</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge or mixing with Rodeo and Hercules effluent, and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D).
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.
E-001-S	At any point in the treatment and disposal facilities following dechlorination.

C. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 through P-"n"	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany each annual report).

D. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
O-1 through O-"n"	Bypass or overflows from manholes, pump stations, and collection systems.

NOTES:

1. A map and description of each known or observed overflow or bypass shall accompany each monthly report. A summary of these occurrences and their locations shall be included with the Annual Report for each calendar year.
2. Each occurrence of a bypass or overflow shall be reported to the Regional Board in accordance with the reporting requirements specified in Sections F.1 and F.2 of Self-Monitoring Program Part A.

E. SLUDGE

The discharger shall analyze sludge as necessary to comply with State and Federal sludge regulations for disposal to land.

II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given in Table 1 (attached).
- B. Sample collection, storage, and analyses shall be performed according to requirements in the latest 40 CFR 136, in the Permit, or as specified by the Executive Officer.

III. REPORTING REQUIREMENTS

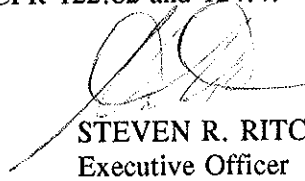
- A. General Reporting Requirements are described in Section C of this Board's "Standard Provisions and Reporting Requirements", dated August 1993.
- B. Self-Monitoring Reports for each calendar month shall be submitted monthly, by the fifteenth day of the following month. The required contents of these reports are described in Section F.4 of Part A.
- C. An Annual Report for each calendar year shall be submitted to the Board by January 30 of the following year. The required contents of the annual report are described in Section F.5 of Part A.
- D. Any Overflow, bypass or significant non-compliance incident that may endanger health or the environment shall be reported according to Sections F.1 and F.2 of Part A. The date, time, duration, location, and estimated volume of each bypass or overflow shall be included in each monthly report.

IV. MODIFICATIONS TO PART A

The second sentence of paragraph C.2(a) is revised as follows: "At least one sampling day in each seven shall reflect, if possible, one day of peak loading and during major unit operation shutdown or startup."

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Order No. 94-111.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer, pursuant to 40 CFR 122.62 and 124.4.


STEVEN R. RITCHIE
Executive Officer

Effective Date: 9/24/94

Attachments:

Table 1 - Schedule of Sampling, Measurement and Analysis
Part A, dated August 1993

Self-Monitoring Program - Attachment A
Pinole-Hercules Water Pollution Control Plant - NPDES Permit No. CA0037796
Order No. 94-111

TABLE 1											
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS											
SAMPLING STATION	A	E-001			E-001-D			E-001-S		All P	All O (12)
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	Cont	C-24	Cont	O	O
Flow Rate (mgd) (1)				D							
BOD, 5-day, 20°C (mg/l & kg/day)	2/W		2/W								
Total Suspended Solids (mg/l & kg/day)	2/W		2/W								
Settleable Solids (ml/l-hr)		3/W									
Oil and Grease (2) (mg/l & kg/day)		2W									
Chlorine Residual, and Dosage (mg/l & kg/day) (3)								Cont or every 2H			
Coliform, Total (MPN/100 ml) (4)					3/W						
Acute Toxicity-96 hr, Flow- through (% Survival) (5)									M		
pH (units) (6)		D									
Temperature °C		D									
Dissolved Oxygen (mg/l & % Saturation)		D									
Sulfides, Total & D'solved (mg/l) (7)		D									
Ammonia Nitrogen (mg/l and kg/day)			M								

Self-Monitoring Program - Attachment A

Pinole-Hercules Water Pollution Control Plant - NPDES Permit No. CA0037796

Order No. 94-111

TABLE 1 (continued)											
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS											
SAMPLING STATION	A	E-001			E-001-D			E-001-S		All P O	All O (12) O
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	C-24	Cont	C-24	Cont	O	O
Arsenic (8)			Q								
Cadmium			Q								
Chromium			Q								
Copper			M								
Lead			Q								
Mercury			Q								
Nickel			Q								
Selenium (9)			Q								
Silver			Q								
Zinc			Q								
Cyanide (10)			Q								
Phenolic Compounds			Q								
PAH's (11)			2/Y								
All Applicable Standard Observations										M	E

LEGENDTYPES OF SAMPLES

G = grab sample
 C-24 = composite sample (24 hour)
 Cont = continuous sampling
 O = observation

TYPES OF STATIONS

A = treatment facility influent station
 E = waste effluent station
 L = basin and/or pond levees stations
 C = receiving water station
 P = treatment facilities perimeter station
 OV = bypasses or overflows from manholes,
 pump stations, or collection systems

LEGEND (cont)FREQUENCY OF SAMPLING

E = each occurrence	2/H = twice per hour	2H = every 2 hours
H = once each hour	2/W = 2 days per week	2D = every 2 days
D = once each day	5/W = 5 days per week	2W = every 2 weeks
W = once each week	2/M = 2 days per month	2M = every 2 months
M = once each month	2/Y = once in March & Oct.	Cont = continuous
Y = once each year	3/Y = once each in March, July, & Nov.	
	Q = quarterly, once each in March, June, Sept., & Dec.	

FOOTNOTES FOR TABLE 1:

1. Flow Rate - Effluent flows shall be measured continuously. The following flow information shall be reported monthly for the effluent:

Average Daily Flow Rate (MGD)
Maximum Daily Flow Rate (MGD)
Minimum Daily Flow Rate (MGD)
Total Flow Volume (MG)

2. Oil and Grease - Each Oil and Grease sample shall consist of three grab samples taken at two hour intervals during the sampling day, with each being collected in a glass container. The grab samples shall be composited for analysis. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
3. Chlorine Residual - Monitor dechlorinated effluent (E-001-DC) continuously or, at a minimum, once every two hours. Report, on a daily basis, both maximum and minimum concentrations, for samples taken following dechlorination. If a violation is detected, the maximum and average concentrations and duration of each non-zero residual event shall be reported, along with the cause and corrective actions taken.

Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved. Chlorine Dosage - Report, on a daily basis, average concentration (mg/l), and total loading (kg/day).

4. When replicate analyses are made of a coliform sample, the reported result shall be the arithmetic mean of the replicate analysis values.
5. The discharger shall determine the two species to be used as specified in Provision F.4 of Order No. 94-014. The tests shall be parallel 96-hour flow through bioassays. The discharger shall perform the tests according to protocols approved by the USEPA, State Board, published by the American Society for Testing and Material (ASTM), or American Public Health Association. Effluent used for fish bioassays must be dechlorinated prior

to testing. Monitoring of the bioassay water shall include, on a daily basis, the following parameters: pH, dissolved oxygen, and temperature. These results shall be reported.

6. If pH is monitored more than once during any day, then daily minimum and maximum for pH shall be reported.
7. Effluent and receiving water analysis for sulfides should be run when dissolved oxygen is less than 5.0 mg/l.
8. Arsenic must be analyzed for only by the atomic absorption, gaseous hydride procedure (EPA Method No. 206.3/Standard Method No. 303E).
9. Selenium must be analyzed for only by the atomic absorption, gaseous hydride procedure (EPA Method No. 270.3/Standard Method No. 303E).
10. The discharger may analyze for cyanide as Weak Acid Dissociable Cyanide using protocols specified in Standard Method No. 4500-CN-I, latest edition.
11. PAHs = Polynuclear Aromatic Hydrocarbons. PAH's shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

Polynuclear aromatic hydrocarbons shall be analyzed using EPA Method 610 of the July, 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-6--/4-82-057. Note that the samples must be collected in amber glass containers. These samples shall be collected for the analysis of the regulated parameters. An automatic sampler which incorporates glass sample containers and keeps the samples refrigerated at 4°C and protected from light during compositing may be used. The 24-hour composite samples may consist of eight grab samples collected at 3-hour intervals. The analytical laboratory shall remove flow-proportioned volumes from each sample vial or container for the analysis.

12. Overflows -
 - (a) Flow: For all overflow events, a best estimate of the total overflow volume (gallons) shall be reported.
 - (b) BOD and Coliform: For any overflow event which involves discharge of wastewater to any surface water or waterway (including dry streams and drainage channels), grab samples shall be taken and analyzed for BOD, and both Total and Fecal Coliform.

NOTES FOR TABLE 1:

1. Grab Samples shall be collected coincident with samples collected for the analysis of regulated parameters. Grab samples must be collected in glass containers. Polycarbonate containers may be used to store tributyltin samples.

2. If any effluent sample is in violation of limits, except those for metals, cyanide, PAH's, phenols, and fish bioassay, sampling shall be increased for that parameter to at least daily or greater until compliance is demonstrated in two successive samples. For metals, cyanide, PAH's and phenols, if any effluent sample is in violation of limits, sampling frequency shall be increased to monthly until compliance is demonstrated in two successive samples. If a fish bioassay results in violation of limits, then additional tests shall be initiated in sequence until compliance is demonstrated.
3. All flow other than to the outfall (e.g., sludge) shall be reported monthly. Daily records shall be kept of the quantity and solids content of dewatered sludge disposed of and the location of disposal.
4. Detection Limits - Laboratory analyses shall be conducted in such a manner as to provide analytical information sufficient to determine compliance with the applicable effluent limitations (Effluent Limitations B.7 of Permit). If the necessary analytical performance is unable to be achieved, the Discharger may request, with supporting documentation, approval from the Executive Officer to allow the use of the best achievable analytical performance. All constituents shall be reported in mg/l or ug/l, and kg/day.
5. During any time when bypassing occurs from any treatment unit(s) in the treatment facilities, the monitoring program for the effluent discharged shall include the following in addition to the above schedule for sampling, measurement and analyses:
 - a. Composite sample on an hourly basis for the duration of the bypass event for BOD, and Total Suspended Solids analyses. Grab samples at least daily for Coliform (Total and Fecal), Settleable Matter and Oil and Grease analyses.
 - b. Continuous monitoring or hourly grab samples for chlorine residual measurement, and continuous monitoring of bypassed flow.
 - c. Daily receiving water sampling and observations shall be performed until it is demonstrated that no adverse impact on the receiving water is detected (receiving water monitoring shall be performed only for bypasses which occur for more than 24 hours, and that result in violation of any effluent limitation (receiving water monitoring is not necessary during bypass events related to wet weather flows).

ATTACHMENT I

STANDARD STORM WATER PROVISIONS

1. The SWPP Plan shall be designed in accordance with good engineering practices and shall address the following objectives:
 - a. to identify pollutant sources that may affect the quality of storm water discharges; and
 - b. to identify, assign, and implement control measures and management practices to reduce pollutants in storm water discharges.

The SWPP Plan may be combined with the existing spill prevention plan as required in accordance with Provision 8 of Standard Provisions and Reporting Requirements. The SWPP Plan shall be retained onsite and made available upon request of a representative of the Regional Board.

2. Source Identification. The SWPP Plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from the facility. The SWPP Plan shall include, at a minimum, the following items:
 - a. A topographic map (or other acceptable map if a topographic map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing: the wastewater treatment facility process areas, surface water bodies (including springs and wells), and the discharge point(s) where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.
 - b. A site map showing:
 - i. Storm water conveyance, drainage, and discharge structures;
 - ii. An outline of the storm water drainage areas for each storm water discharge point;
 - iii. Paved areas and buildings;
 - iv. Areas of pollutant contact with storm water or release to storm water, actual or potential,

including but not limited to outdoor storage, and process areas, material loading, unloading, and access areas, and waste treatment, storage, and disposal areas;

- v. Location of existing storm water structural control measures (i.e., berms, coverings, etc.);
- vi. Surface water locations, including springs and wetlands;
- vii. Vehicle service areas;

C. A narrative description of the following:

- i. Wastewater treatment process activity areas.
- ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharge;
- iii. Material storage, loading, unloading, and access areas;
- iv. Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharge;
- v. Methods of onsite storage and disposal of significant materials;

D. A list of pollutants that have a reasonable potential to be present in storm water discharge in significant quantities.

3. Storm Water Management Controls. The SWPP Plan shall describe the storm water management controls appropriate for the facility and a time schedule for fully implementing such controls. The appropriateness and priorities of controls in the SWPP Plan shall reflect identified potential sources of pollutants. The description of storm water management controls shall include, as appropriate:

- a. Storm Water Pollution Prevention Personnel. Identify specific individuals (and job titles) who are responsible for developing, implementing, and revising the SWPP Plan.
- b. Good Housekeeping. Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall

be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

- c. Spill Prevention and Response. Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, clean up equipment and procedures should be identified, as appropriate. The necessary equipment to implement a clean-up shall be available and personnel trained in proper response, containment and cleanup of spills. Internal reporting procedures for spills of significant materials shall be established.
- d. Source Control. Source controls, such as elimination or reduction of the use of toxic pollutants, covering of pollutant areas, sweeping of paved areas, containment of potential pollutants, labelling all storm drain inlets with "No Dumping" signs, isolation/separation of industrial from non-industrial pollutant sources so that runoff from these areas does not mix, etc.;
- e. Storm Water Management Practices. Storm water management practices are practices other than those which control the source of pollutants. They include treatment/conveyance structures such as drop inlets, channels, retention/detention basins, treatment vaults, infiltration galleries, filters, oil/water separators etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharge shall be implemented and design criteria shall be described.
- g. Sediment and Erosion Prevention. Measures to limit erosion around the storm water drainage and discharge points such as riprap, revegetation, slope stabilization, etc. shall be described and implemented;
- h. Employee Training. Employee training programs shall inform all personnel responsible for implementing the SWPP Plan. Training should address spill response, good housekeeping, and material management practices. Periodic dates for training shall be identified.
- i. Inspections. All inspections shall be done by trained personnel. Material handling areas shall be inspected for evidence of, or the potential for, pollutants

entering storm water discharges. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

- j. Records A tracking and follow up procedure shall be described to ensure that adequate response and corrective actions have been taken in response to inspections. Records of inspections shall be maintained. Establishment of internal record keeping and internal reporting procedures of inspections and spill incidents.
4. An annual facility inspection shall be conducted to verify that all elements of the SWPP Plan (i.e., site map, potential pollutant sources, structural and non-structural controls to reduce pollutants in industrial storm water discharge, etc.) are accurate. A report of the annual inspection and observations that require a response (and the appropriate response to the observation) shall be retained as part of the SWPP Plan.